Local Work Instruction:

Transocean Polar Pioneer: Muds, Cuttings, and Cement at the Seafloor Discharge – D013

Approved By:Written By:Jeff KidneighScope:Revised By:D. Johnson

Issue Date: Revision/Review

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SCOPE:

This document offers work level instructions for the sampling, testing, and reporting associated with the discharge of mud, cuttings, and cement at the seafloor while operating under the guidelines of the NPDES General Permit (AKG-28-8100), on-board the Transocean *Polar Pioneer*.

RESPONSIBILITY:

The M-I SWACO NPDES Compliance Specialist is responsible for ensuring that this LWI has been provided to each person involved with this task. Any personnel that may perform the tasks outlined in this document must be familiar with the process.

1.0 References:

- 1.0 NPDES GP AKG-28-8100:
 - 1.0.1 Table 14 Effluent Limitations and Monitoring Requirements for Muds, Cuttings, and Cement at the Seafloor (D013).
- 1.1 M-I SWACO ONE-TRAX Drilling Fluids Management System.
- 1.2 Transocean Polar Pioneer Best Management Practices, April 2015.
- 1.3 Transocean Polar Pioneer Quality Assurance Project Plan, April 2015.
- 1.4 M-I SWACO (or Misc.) Standard Operating Procedures: 1006, 3005.
- 1.5 M-I SWACO Chemical Inventory and Additives Use Management.
- 1.6 Shell Exploration & Production Company Alaska Venture 2015 Polar Pioneer Waste Management Plan.

2.0 General Requirements:

- 2.0 The M-I SWACO NPDES Compliance Specialist is responsible for all discharge sampling, testing, and reporting to the Shell Environmental Department while operating under NPDES GP AKG-28-8100.
- 2.1 Shell Environmental Department is responsible for maintaining and submitting to EPA through the Discharge Monitoring Report (netDMR) all discharges sampling, testing and results.
- 2.2 Transocean and Halliburton personnel are responsible for operating and repairing all equipment associated with this discharge.

3.0 Safety Guidelines:

- 3.0 Before any operations can take place, all personnel involved in this process must complete the following if required:
 - 3.0.1 The Pre-Tour Meeting is when daily activities are discussed.

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- 3.0.2 Written Risk Assessment with all involved parties present.
- 3.0.3 After action review of Risk Assessment.
- 3.0.4 Transocean Permit to Work.

4.0 Discharge/Task Description:

- 4.0 All mud, cuttings and cement discharged at the seafloor are covered by this LWI until such time the riser is installed. Upon completion of the riser installation, effluent discharge requirements will then follow the stipulations set forth in the D001 guidelines.
- 4.1 Free oil testing using a visual observation will be done during the maximum estimated flow rates, in the vicinity of the outfall and during daylight hours. If low visibility conditions exist, a static sheen test will be performed on the effluent prior to discharge.
- 4.2 Total volume of mud discharged will be recorded using the M-I SWACO Fluid Management System ONE-TRAX. Time of the observation will be recorded for each visual inspection. The ONE-TRAX Fluid Management System will be used to calculate the concentrations of products added to this discharges.
- 4.3 For cementing operations, the total volume of chemicals (cement) used will be provided to the M-I SWACO NPDES Compliance Specialist from the Halliburton Cement Operator prior to

Effluent Parameter	Effluent Limitations		Monitoring Requirements	
	Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
Free oil	No discharge		Daily	Visual
Total Volume	Report (gal)		Monthly	Estimate

cementing operations. The total volume of cement along with chemical concentration will be recorded on the NPDES Master Spreadsheet and reported to the Shell Environmental Department.

4.4 The M-I SWACO NPDES Compliance Specialist will immediately report to Shell Environmental Department, at 907-830-7435, of any upset condition.

5.0 Sampling Requirements for Muds, Cuttings and Cement at Seafloor (D012):

6.0 Clean-up:

6.0 Follow housekeeping practices.

7.0 Contingency:

7.0 Notify the Transocean Drilling Department if any equipment isn't working properly.

Revision Log:

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